

Field Report

Crab Orchard National Wildlife Refuge

■ 1.0 Summary



Crab Orchard National Wildlife Refuge (NWR) is located in southern Illinois and at 43,660 acres is one of the largest Refuges within the USFWS system. The refuge is located southwest of Marion, Illinois.

The Refuge is a major wintering area for nearly 150,000 Canadian Geese. The Refuge provides public access to three large lakes, open hunting and fishing areas, a wilderness area, a closed area and is home to industrial tenants. The industrial tenants occupy approximately 1 million square feet of building space and generate approximately \$45 million in annual revenues. There are approximately 80 miles of roads within the Refuge with approximately half of the roads paved and the other half unpaved.

Approximately 1.2 million people visit the Refuge each year with an estimated 75 percent of the visitors coming from the immediate area. There are also a significant number of visitors who are traveling on nearby Interstate 58 and make spontaneous decisions to pull off the Interstate and drive the five miles to the Refuge.

Tourism accounts for approximately 12 percent of the area's gross revenues from all activities and the Refuge is a significant attraction that the Tourism industry uses to help draw visitors to the region. In recognition of the important role that the Refuge plays in the local tourism industry, a partnership has developed between the Refuge and the Williamson County Tourism Bureau. The Refuge's Visitor Center doubles as the Tourist

Information Center for activities within Williamson County and houses the Tourism Bureau's offices. This partnership is entering its third year and both parties have benefited by sharing personnel and the facility.

The greatest noted transportation concern involves the condition of the roadway system within the Refuge. As noted earlier, there are approximately 80 miles of roads that traverse the Refuge with approximately 50 percent of the roads paved and the other 50 percent unpaved. Decaying road conditions are prevalent among the 40 miles of paved roadway. It has been 20 years since the paved roads have been upgraded and improving the conditions of the paved roads is a top concern of Refuge Management.

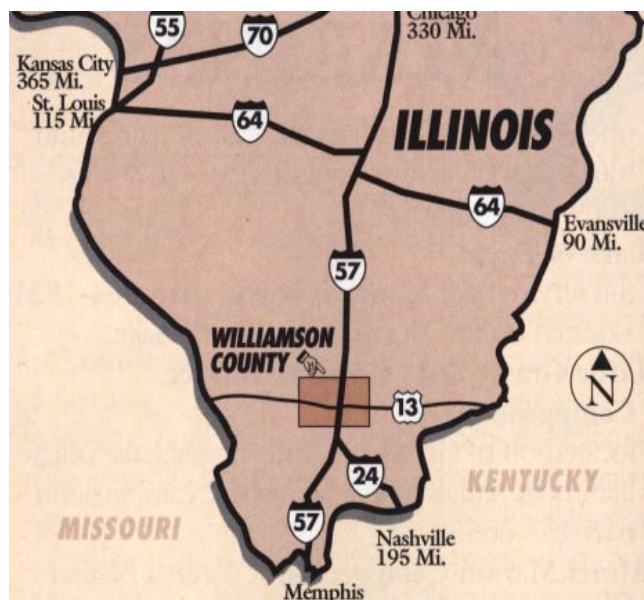
Developing and providing transit alternatives at the Refuge does not appear to be a necessary solution for the existing conditions or for conditions expected in the next five to 10 years.

■ 2.0 Background Information

2.1 Location

Crab Orchard NWR is located in southern Illinois, approximately five miles south of the City of Herrin and five miles west of the city of Marion in Williamson County (see Figure 1). The Visitor Information Center for the Refuge is a five-mile drive from Interstate 57 that traverses the length of Illinois.

Figure 1. Location of Crab Orchard NWR in Southern Illinois



2.2 Administration and Classification

The Refuge is managed by the USFWS and is a field office within Region III. Mr. Daniel Doshier, Refuge Manager, heads the full-time staff of 27 employees.

2.3 Physical Description

This site is 43,660 acres and one of the largest Refuges within the USFWS system. The Refuge provides public access to three large lakes, open hunting and fishing areas, a wilderness area, a closed area and is home to industrial tenants. A map of the site is shown in Figure 2.

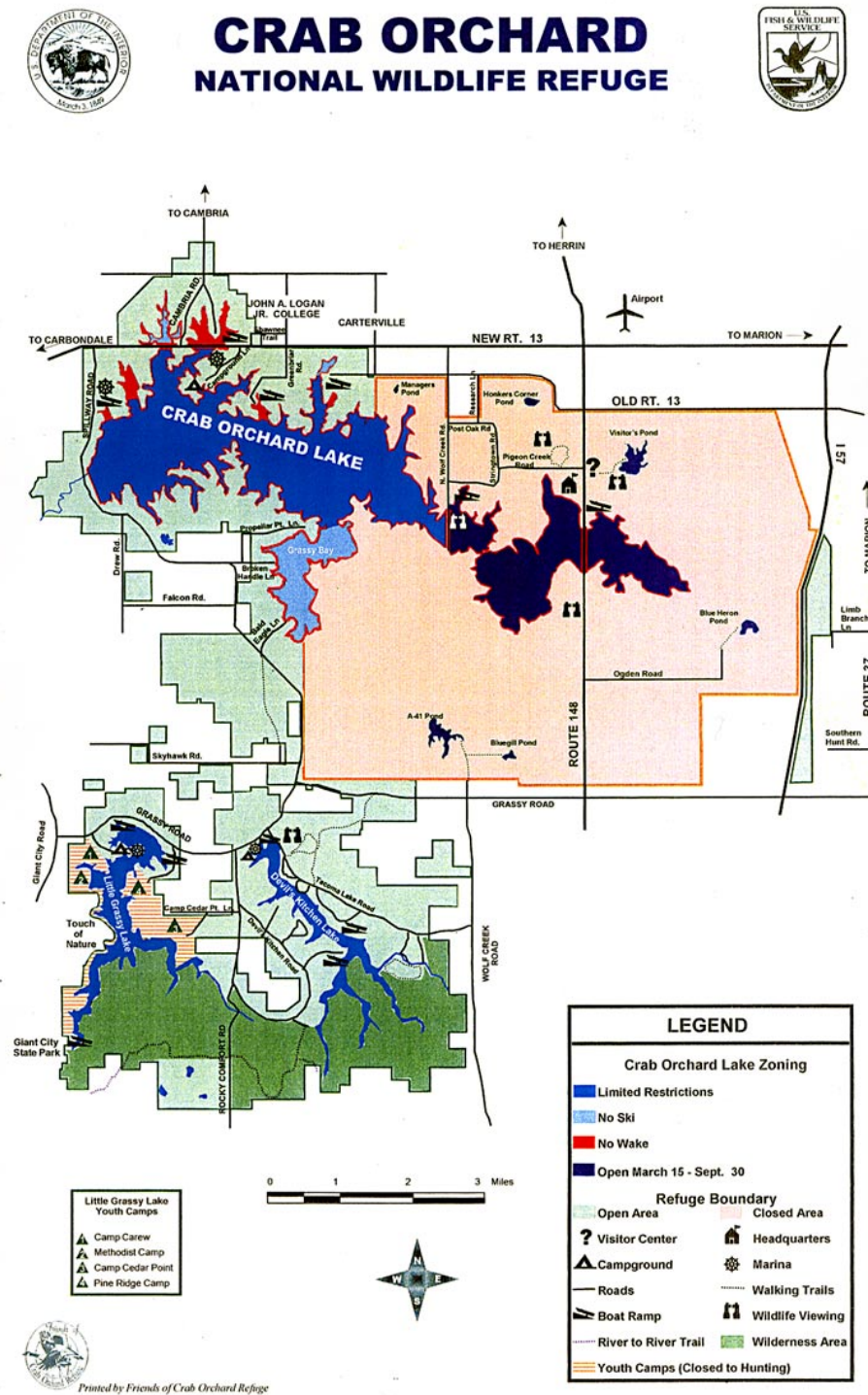
The industrial tenants occupy approximately 1 million square feet of building space and generate approximately \$45 million in annual revenues. The industrial tenants have their roots from the World War II era when the site was used for the production of ammunition. The facilities used by the tenants are generally considered to be “wearing out.”

The Refuge is required to provide police, fire, water and sewer service to industrial tenants, and water service to a maximum-security Federal prison located adjacent to the Refuge.

The topography of the Refuge varies from gentle rolling slopes through most of the site to slopes exceeding 24 percent in the southern portion. Major habitat types are hardwood forest, agricultural land, wildlife/livestock grazing units, open brushland, wetlands and lakes. A large portion of the site is designated as a wildlife sanctuary and remains closed to general public use. There is also a 4,050-acre wilderness area. The Refuge is a major wintering area for nearly 150,000 Canada geese.

Public vehicles are permitted on all open roads. Throughout the year, there is a seven-mile self-guided tour of the northern part of the Refuge that winds through agricultural and industrial areas as well as natural habitats. During Sundays in October, the Refuge’s 20,500-acre closed area is open to the public and visitors can enjoy a 17-mile self-guided tour.

Figure 2. Crab Orchard National Wildlife Refuge



2.4 Mission and Goals of the Wildlife Refuge



The Refuge is managed with four broad objectives: wildlife management, agricultural development, recreational use, and industrial operation. The wildlife management objective is partially accomplished through the designation of 22,000 acres of the Refuge as a wild life sanctuary that remains closed to general public use.

The wildlife objective is also coordinated with the agricultural development objective through cooperative farming and permittee grazing programs. These programs are the primary management tools used to provide feeding and loafing areas for migrating and wintering waterfowl, which is one of the main wildlife objectives on the Refuge. Also related to this objective is a reforestation program that was initiated in various areas of the Refuge within the last five years.

The recreational objective focuses on the three man-made lakes that collectively exceed 8,700 acres. Public use programs include campgrounds and marinas managed by concessionaires that offer boating, skiing, fishing, swimming, hunting and wildlife observations. Additionally, there are public hunting areas, picnic areas, walking trails and observation points throughout the Refuge.

As noted earlier, the Refuge's industrial operation has its roots in the World War I era and is comprised of activities ranging from manufacturing and storage facilities to administrative offices. Over \$45 million is generated annually by the industrial tenants on the Refuge.

In 1993, the Refuge developed the following Mission Statement:

- Restore native fishes, wetland, and other aquatic habitats in the "Great Lakes Big Rivers" Region;
- Fulfill Federal trust responsibilities to American citizens in managing, enhancing, protecting, and restoring fish and wildlife resources and ecosystems;
- Assist Federal resource managers and regulators in wildlife management and stewardship in the "Great Lakes big Rivers" Region;

- Promote cooperative efforts to prevent, control, or adapt to the spread of non-indigenous aquatic nuisance species; and
- Distribute information and educate people about fish and wildlife resources and ecosystems.

2.5 Visitation Levels and Visitor Profile

The Refuge hosts approximately 1.2 million visitors per year with an estimated 75 percent of the visitors coming from the immediate area. Highest volumes occur in the late fall with the arrival of migratory waterfowl. During this time, most visitors arrive at the Refuge during the late afternoon hours and drive slowly around the refuge in search of wildlife.

Additionally, there are a significant number of visitors who are traveling on nearby Interstate 57 and make spontaneous decisions to pull off the Interstate and drive the five miles to visit the Refuge.

■ 3.0 Existing Conditions, Issues and Concerns

3.1 Transportation Conditions, Issues and Concerns

Access to the Refuge is generally good. Signs along Interstate 57 adequately inform motorists of the location of the Refuge and of its proximity – approximately five miles. There are adequate signs between the Interstate and the Refuge that provide motorists with simple to follow directions. A four-lane divided highway, Illinois Route 13, provides a satisfactory east/west route in the area and Illinois Route 148 is a recently paved two-lane undivided highway that bisects the Refuge.

Most visitors to the Refuge are in personal automobiles. School buses make frequent use of the Refuge but have not created parking or congestion problems. Occasionally, a motorcoach will visit the Refuge. It is estimated that less than one percent of all vehicles visiting the Refuge are RV's or recreational type vehicles.

The greatest noted transportation concern involves the condition of the roadway system within the Refuge. As noted earlier, there are approximately 80 miles of roads that traverse the Refuge with approximately half of the roads paved and the other half unpaved. Decaying road conditions are prevalent among the 40 miles of paved roadway. It has been 20 years since the paved roads have been upgraded and improving the conditions of the paved roads is a top concern of Refuge staff. Refuge staff estimated that all 40 miles of paved roads are in need of upgrading/repaving. Additionally, there is an interest in paving the 40 miles of roadway that are currently unpaved.



3.2 Community Development Conditions, Issues and Concerns

Tourism accounts for approximately 12 percent of the area's gross revenues from all activities and the Refuge is a significant attraction that the Tourism industry uses to help draw visitors to the region.

In recognition of the important role that the Refuge plays in the local tourism industry, a partnership has developed between the Refuge and the Williamson County Tourism Bureau. The Refuge's Visitor Center doubles as the Tourist Information Center for activities within Williamson County and houses the Tourism Bureau's offices. This partnership is entering its third year and both parties have benefited by sharing personnel and the facility. Other joint efforts between the Tourism Bureau and Refuge include signs on the Interstate directing people to the site, radio station promotions, a paved parking lot, brochure printing and wildflower promotions.

The Executive Director of the Williamson County Tourism Bureau echoed the Refuge staff concerns that the road network within the refuge is a top concern. The Tourism Bureau also noted that an airport within three miles of the Refuge is underutilized.

3.3 Natural or Cultural Resource Conditions, Issues and Concerns

Since the primary goal of the refuge is to provide a safe haven for waterfowl and other wildlife, improvements to roads, trails and parking areas within the refuge would need to be designed to minimize the impact on existing wildlife habitat and management practices.

Paving of roadways and trails in their current locations would have minimal impact on wildlife habitat and would reduce the impacts of dust on most wildlife within the refuge.

3.4 Recreation Conditions, Issues and Concerns

As noted earlier, the three man-made lakes that collectively exceed 8,700 acres are a significant element of the Refuge's recreation activities. Public use programs include campgrounds and marinas managed by concessionaires that offer boating, skiing, fishing, swimming, hunting and wildlife observations. Additionally, there are public hunting areas, picnic areas, walking trails and observation points throughout the Refuge.

There were no issues or concerns noted during the visit related to recreational issues.



■ 4.0 Planning and Coordination

4.1 Unit Plans

During the fall of 1999, development of a comprehensive plan for the Refuge will begin.

The Refuge intends to submit an application to Region III of the USFWS for funds to upgrade the road network within the Refuge. A special emphasis will be placed on paving roads that lead to the industrial areas of the Refuge.

4.2 Public and Agency Coordination

The Refuge and Williamson County Tourism Bureau have developed a formal partnership under which the Refuge's Visitor Center doubles as the Tourist Information Center for Williamson County and is also home to the Tourism Bureau's offices. This partnership is

entering its third year and both parties have benefited by sharing personnel and the facility. Other joint efforts between the Tourism Bureau and Refuge include signs on the Interstate directing people to the site, radio station promotions, a paved parking lot, brochure printing and wildflower promotions.

The Refuge is viewed as a significant attraction for the area and the Williamson County Tourism Bureau intends to continue to promote it as a major attraction in the area.

■ 5.0 Assessment of Need and System Options

5.1 Magnitude of Need

As noted earlier, the greatest transportation concern involves the condition of the roadway system within the Refuge. There are approximately 80 miles of roads that traverse the Refuge with approximately half of the roads paved and the other half unpaved. Decaying road conditions are prevalent among the 40 miles of paved roadway. It has been 20 years since the paved roads have been upgraded and improving the conditions of the paved roads is a top concern of refuge management. Refuge staff estimated that all 40 miles of paved roads are in need of upgrading/repaving. Additionally, there is an interest in paving the 40 miles of roadway that are currently unpaved.

Specific needs are summarized below:

- Convert 40 miles of unpaved roadway to paved roadway;
- Upgrade/repair 40 miles of paved roadway; and
- Provide for ongoing maintenance of existing and future roadways.

5.2 Range of Feasible Transit Alternatives

Developing and providing transit alternatives at the Refuge does not appear to be a necessary solution for the existing conditions or for conditions expected in the next five to 10 years.

As noted earlier, the most significant transportation concern for the Refuge is the existing road network within the Refuge.

If a transit system were developed for the Refuge, the Visitor Center located east of Illinois Route 148 would be a natural choice to serve as a park and ride location for a shuttle service leading to the Refuge. The Visitor Center provides a focal point for visitors and the existing parking lot is relatively flat and open. This current configuration would allow the development of a park and ride location with relatively modest modifications. If the site were developed as a park and ride site, careful consideration should be given to the expected number of visitors, peak visitation periods and the capacity of the parking lot.

Visitor Center Parking Area



■ **6.0 Bibliography**

Crab Orchard National Wildlife Refuge. Internet site: http://www.fws.gov/r3pao/cr_orch/. Information printed September 8, 1999.

Crab Orchard National Wildlife Refuge. Brochure. Undated.

■ **7.0 Persons Interviewed**

Daniel Doshier, Refuge Manager, September 14, 1999